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IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (ORIGINAL), (CURRENTLY AMENDED), (CANCELLED), (WITHDRAWN), (NEW), (PREVIOUSLY PRESENTED), or (NOT ENTERED).

Please CANCEL claims 1, 4, 9, 10 and 11, and AMEND claims 2, 3 and 5-8 in accordance with the following:

1. (CANCELLED)
2. (CURRENTLY AMENDED) ~~The~~ An object collaboration apparatus, ~~according to Claim 1 comprising:~~
 - a computer, comprising:
 - a plurality of object-oriented data structures comprising objects, each object comprising:
 - a message receiving portion to monitor and obtain a requesting message transmitted over a network by another of the objects,
 - a reaction table to store an action content which is a reaction to said requesting message, wherein a reaction relationship of requesting messages and respective actions defined in the reaction table drives the object collaboration apparatus,
 - and
 - an action executing portion to execute processing in accordance with the action content;
 - a requesting message sending portion to send a requesting message in which the object initiates a task by requesting processing of the task from other objects;
 - a bidding portion to automatically generate and return a bidding message responsive to a requesting message if an action corresponding to the task that is requested in the requesting message is present in the reaction table, where the bidding message is a bid for the object to process the requested task;
 - a bid awarding portion to automatically determine, from among objects returning a bidding message, an object to which processing of the task is assigned, wherein:
 - the said bid awarding portion uses, as one bid determining parameter, a communication time that is necessary for communication between the task initiator object

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and the objects sending the bidding message, and preferentially awards a bid to an object that has a short communication time between objects-;

a bid awarding notifying portion to notify the selected object of a bid awarding determination; and

a bidding system determining the selected object, of which task processing is requested, if there are a plurality of competing objects responding to the requested task when receiving a bid awarding notification.

3. (CURRENTLY AMENDED) The An object collaboration apparatus, according to Claim 1 comprising:

a computer, comprising:

a plurality of object-oriented data structures comprising objects, each object comprising:

a message receiving portion to monitor and obtain a requesting message transmitted over a network by another of the objects,

a reaction table to store an action content which is a reaction to said requesting message, wherein a reaction relationship of requesting messages and respective actions defined in the reaction table drives the object collaboration apparatus, and

an action executing portion to execute processing in accordance with the action content;

a requesting message sending portion to send a requesting message in which the object initiates a task by requesting processing of the task from other objects;

a bidding portion to automatically generate and return a bidding message responsive to a requesting message if an action corresponding to the task that is requested in the requesting message is present in the reaction table, where the bidding message is a bid for the object to process the requested task;

a bid awarding portion to automatically determine, from among objects returning a bidding message, an object to which processing of the task is assigned, wherein;

the said bid awarding portion uses, as one bid determining parameter, an empirical value of past processing performances for similar tasks of the objects sending a bidding message, and preferentially awards a bid to an object that is expected to have a high processing performance for the requested task-;

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a bid awarding notifying portion to notify the selected object of a bid awarding determination; and

a bidding system determining the selected object, of which task processing is requested, if there are a plurality of competing objects responding to the requested task when receiving a bid awarding notification.

4. (CANCELLED)

5. (CURRENTLY AMENDED) ~~The~~ An object collaboration apparatus, ~~according to Claim 4 comprising:~~

a computer, comprising:

a plurality of object-oriented data structures comprising objects, each object comprising:

a message receiving portion to monitor and obtain a requesting message transmitted over a network by another of the objects,

a reaction table to store an action content which is a reaction to said requesting message, wherein a reaction relationship of requesting messages and respective actions defined in the reaction table drives the object collaboration apparatus, and

an action executing portion to execute processing in accordance with the action content;

a requesting message sending portion to send a requesting message in which the object initiates a task by requesting processing of the task from other objects;

a bidding portion to automatically generate and return a bidding message responsive to a requesting message if an action corresponding to the task that is requested in the requesting message is present in the reaction table, where the bidding message is a bid for the object to process the requested task, wherein:

said bidding portion includes, in a bidding value, a bidding parameter that shows its own condition with respect to a task for which said bidding portion returns a bidding message, and

the said bidding portion sends the bidding message using, as one bidding parameter, processing resources that can be assigned to a requested task processing;

a bid awarding portion to automatically determine, from among objects returning a bidding message, an object to which processing of the task is assigned, wherein:

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said bid awarding portion determines a bid-winning object using the bidding value as one bid determining parameter, and

the-said bid awarding portion selects an object having a bidding value indicative of large processing resources that can be assigned, and preferentially awards a bid to the selected object as the bid winning object;

a bid awarding notifying portion to notify the selected object of a bid awarding determination; and

a bidding system determining the selected object, of which task processing is requested, if there are a plurality of competing objects responding to the requested task when receiving a bid awarding notification.

6. (CURRENTLY AMENDED) The An object collaboration apparatus, according to Claim 4 comprising:

a computer, comprising:

a plurality of object-oriented data structures comprising objects, each object comprising:

a message receiving portion to monitor and obtain a requesting message transmitted over a network by another of the objects,

a reaction table to store an action content which is a reaction to said requesting message, wherein a reaction relationship of requesting messages and respective actions defined in the reaction table drives the object collaboration apparatus, and

an action executing portion to execute processing in accordance with the action content;

a requesting message sending portion to send a requesting message in which the object initiates a task by requesting processing of the task from other objects;

a bidding portion to automatically generate and return a bidding message responsive to a requesting message if an action corresponding to the task that is requested in the requesting message is present in the reaction table, where the bidding message is a bid for the object to process the requested task, wherein:

said bidding portion includes, in a bidding value, a bidding parameter that shows its own condition with respect to a task for which said bidding portion returns a bidding message, and

the-said bidding portion sends the bidding message using, as one bidding

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parameter, an object load ratio showing a ratio of the already assigned processing resources to the bidding object's original processing resources;

a bid awarding portion to automatically determine, from among objects returning a bidding message, an object to which processing of the task is assigned, wherein;

said bid awarding portion determines a bid-winning object using the bidding value as one bid determining parameter, and

the said bid awarding portion selects, from the object load ratios in the bidding values, an object having a small load that is already assigned, and preferentially awards a bid to the selected object as the bid-winning object;

a bid awarding notifying portion to notify the selected object of a bid awarding determination; and

a bidding system determining the selected object, of which task processing is requested, if there are a plurality of competing objects responding to the requested task when receiving a bid awarding notification.

7. (CURRENTLY AMENDED) ~~The~~ An object collaboration apparatus, ~~according to Claim 4 comprising:~~

a computer, comprising:

a plurality of object-oriented data structures comprising objects, each object comprising:

a message receiving portion to monitor and obtain a requesting message transmitted over a network by another of the objects,

a reaction table to store an action content which is a reaction to said requesting message, wherein a reaction relationship of requesting messages and respective actions defined in the reaction table drives the object collaboration apparatus, and

an action executing portion to execute processing in accordance with the action content;

a requesting message sending portion to send a requesting message in which the object initiates a task by requesting processing of the task from other objects;

a bidding portion to automatically generate and return a bidding message responsive to a requesting message if an action corresponding to the task that is requested in the requesting message is present in the reaction table, where the bidding message is a bid for the object to process the requested task, wherein;

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said bidding portion includes, in a bidding value, a bidding parameter that shows its own condition with respect to a task for which said bidding portion returns a bidding message, and

the said bidding portion sends the bidding message using, as one bidding parameter, a computer load ratio indicating a ratio of the already assigned processing resources to the processing resources of a computer that is executing the bidding object;

a bid awarding portion to automatically determine, from among objects returning a bidding message, an object to which processing of the task is assigned, wherein;

said bid awarding portion determines a bid-winning object using the bidding value as one bid determining parameter, and

the said bid awarding portion selects, from the computer load ratios in the bidding values, an object that is executed on a computer having a small load that is already assigned, and preferentially awards a bid to the selected object as the bid-winning object;

a bid awarding notifying portion to notify the selected object of a bid awarding determination; and

a bidding system determining the selected object, of which task processing is requested, if there are a plurality of competing objects responding to the requested task when receiving a bid awarding notification.

8. (CURRENTLY AMENDED) The An object collaboration apparatus, according to Claim 4 comprising:

a computer, comprising:

a plurality of object-oriented data structures comprising objects, each object comprising:

a message receiving portion to monitor and obtain a requesting message transmitted over a network by another of the objects,

a reaction table to store an action content which is a reaction to said requesting message, wherein a reaction relationship of requesting messages and respective actions defined in the reaction table drives the object collaboration apparatus, and

an action executing portion to execute processing in accordance with the action content;

a requesting message sending portion to send a requesting message in which

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the object initiates a task by requesting processing of the task from other objects;

a bidding portion to automatically generate and return a bidding message responsive to a requesting message if an action corresponding to the task that is requested in the requesting message is present in the reaction table, where the bidding message is a bid for the object to process the requested task, wherein:

said bidding portion includes, in a bidding value, a bidding parameter that shows its own condition with respect to a task for which said bidding portion returns a bidding message, and

the said bidding portion sends the bidding message using, as one bidding parameter, a skillfulness calculated based on a processing efficiency of the requested task depending on an application at the task, which is based on resources available to the bidding object;

a bid awarding portion to automatically determine, from among objects returning a bidding message, an object to which processing of the task is assigned, wherein:

said bid awarding portion determines a bid-winning object using the bidding value as one bid determining parameter, and

the said bid awarding portion selects an object that is good at processing the requested task, and preferentially awards a bid to the selected object as the bid-winning object;

a bid awarding notifying portion to notify the selected object of a bid awarding determination; and

a bidding system determining the selected object, of which task processing is requested, if there are a plurality of competing objects responding to the requested task when receiving a bid awarding notification.

9. (CANCELLED)

10. (CANCELLED)

11. (CANCELLED)